from above (Carl Ernst pers. comm., *in* Clark, 1982). No explanation was given for predation on Stinkpots. However, their unwary basking behavior may allow Bald Eagles to catch these turtles while they are on basking logs. Although the dense overstory at the Chickahominy River site would prevent predation by predatory birds, the open water of Waller Mill Reservoir would allow a Bald Eagle to successfully capture a basking Stinkpot. Unwariness on basking sites with overhanging vegetation may also allow other predators, such as raccoons, to catch Stinkpots.

Painted Turtles (*Chrysemys picta*) were the only other turtle species observed basking at the Chickahominy River site. Several Painted Turtles, Sliders (*Trachemys scripta*), and Red-bellied Cooters (*Pseudemys rubriventris*) were observed basking on a large, but separate, log near one of the observed Stinkpots at Waller Mill Reservoir. No Stinkpots were observed at either site basking on logs with larger turtles. Because larger turtles displace smaller turtles for basking sites (Lovich, 1988; Lindeman, 1999), Stinkpots may have to find other suitable basking sites. However, Stinkpots appear to be able to take advantage of basking sites used only by hatchlings or juveniles of the larger species (JDK, pers obs.). The first Stinkpot encountered at Waller Mill Reservoir was observed basking beside a juvenile Painted Turtle of similar size. In addition, the physiology of Stinkpots may enable them to use marginal basking sites. Since these bottom walkers spend a significant amount of their time underwater, their shells remain wet, and abundant algal growth often covers their shells (Ernst et al., 1994). Thus, basking may not be as critical to their biology as it is to other aquatic turtle species. Basking sites selected may be the result of the inability of this small turtle to compete with larger turtles for prime basking sites. Conversely, physiological needs of Stinkpots may also allow them to exploit basking sites that are suboptimal for other syntopic turtles. Observations of emydid and Stinkpot interactions are needed to further address these inferences.

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EARLY EMERGENCE AND UNUSUAL COLORATION IN EASTERN MILK SNAKES (*LAMPROPELTIS TRIANGULUM TRIANGULUM*) IN THE NORTHERN BLUE RIDGE MOUNTAINS OF VIRGINIA – North American milksnakes (*Lampropeltis triangulum*) are well known for striking geographic variation in color and pattern (Conant, 1943; Williams, 1988; Bartlett & Tennant, 2000; Tennant & Bartlett, 2000; Ernst & Ernst, 2003). Less has been written about the natural history of this species and most of it is anecdotal (e.g., Surface, 1906; Uhler et al., 1939; Mahan, 1956; Lee, 1968; Tryon, 1982). Several authors (e.g., Fitch, 1970, 1999; Klemens, 1993; Palmer & Braswell, 1995; Hulse et al., 2001) have studied habitat use, seasonal activity, reproduction, and population ecology, albeit in

locations outside of Virginia. Williams (1988) and Ernst & Ernst (2003) summarized the natural history of *L. triangulum*. Mitchell (1994) reviewed new and published information on the natural history and phenotypic variation of this snake in the Commonwealth. The earliest known date of activity documented was 18 April and the latest was 19 October. Observations of this snake are still needed to expand our knowledge of its natural history and understanding of its seasonal activity patterns. Phenotypic variation is complex across the state and particularly in the northern Blue Ridge Mountains. We offer additional information on seasonal activity and color and pattern variation in this snake from the northern Blue Ridge.

On 2 February 2006, David Carr found an adult Eastern Milksnake (*L. triangulum triangulum*, total length 565 mm) dead on Berry's Ferry Road adjacent to the University of Virginia's Blandy Experimental Farm in Clarke County, Virginia (39° 03.613' N, 78° 04.903' W). It was killed while crossing a two-lane asphalt road with forest on both sides. One side had a mowed grassy strip about 2.5 m wide between the road and woods. Trees in the woodlot included Red Oak (*Quercus ruber*), Black Oak (*Q. velutina*), White Oak (*Q. alba*), Hackberry (*Celtis laevigata*), and Mockernut Hickory (*Carya tomentosa*). *Smilax* spp. vines and the invasives Bush Honeysuckle (*Lonicera marrowii*) and Japanese honeysuckle (*L. japonica*) occurred in the understory. The substrate had an abundance of leaf litter. The surrounding area has rural residences, an intensive dairy farm, cornfields, hay fields, pastures, limestone outcrops, stacked rock walls, and forest (as described above). The highest daytime air temperature on 2 February was 9.5° C and the lowest was –2° C (University of Virginia, Blandy Farm weather station). Air temperatures over the two-day period prior to the snake's activity were 17° C on 31 January and 17.5° C on 1 February, and the lows for these dates were 0° and –1° C, respectively. The observation of a road-kill on 2 February extends the earliest known activity date in Virginia by an additional 75 days. There were no obvious injuries or marks that would have suggested that a predator had pulled it out of its hibernation site. Thus, the likely conclusion is that this individual responded to the warm winter temperatures.

The snake found DOR on 2 February exhibited the colors and patterns typical of Eastern Milksnakes occurring in the mountains of Virginia (see Mitchell, 1994 for full descriptions). Like other normally patterned *L. triangulum* from the northern Blue Ridge Mountains, it had reddish-brown body blotches edged in black, and the neck blotch is connected to the one on the dorsum of the head to form a typical Y-shaped pattern of normal background color in the center (Mitchell, 1994). Most of the dorsal blotches had extensions on each side that reached the ventral scales, a feature not characteristic of most Eastern Milksnakes. Smaller, lateral black blotches in typical phenotypes alternate with the dorsal blotches and encroach onto the venter as well. Ventral scales of normal milksnakes phenotypes in Virginia are cream to yellowish and peppered variously in black; they alternate with black half- to full-sized ventral scales. In contrast, the DOR snake had an immaculate white venter with few black specks and lacked the black half and full scales completely (Fig. 1).

Another *L. triangulum*, found alive on Blandy Farm on 6 April 2006, exhibited the typical pattern as noted above but differed in coloration. Each body blotch on this snake was orange with a narrow black border; blotch count was 36 (within the range of 26-41 known for this region, Mitchell, 1994). Dorsal body blotches had no lateral extensions and most terminated on scale row 5 (Fig. 2). The neck blotch was connected to the one on the head but the single, central patch of background color lacked the upper arms of the normal Y-shape marking. The alternating lateral blotches were a combination of black and orange and only reached the lateral margins of the ventral scales. Background color of Eastern Milksnakes in Virginia is normally brown to gray variously peppered with black specks (Mitchell, 1994). The snake found on Blandy Farm had a light orange-tan background speckled in black. Its venter was orange with some black peppering that alternated irregularly with completely black scales. The black eye-jaw stripe was present on this snake, a feature characteristic of Virginia Milksnakes. Its ventral scale count was 194 and subcaudal scale count 54, both

Fig. 1. Ventral pattern of a *Lampropeltis triangulum* from Clarke County, Virginia, with a nearly immaculate white venter and only the lateral blotches encroaching onto the ventral scales. Photo by Carrie Seltzer.

Fig. 2. An unusually-colored *Lampropeltis triangulum* from Clarke County, Virginia. Dorsal blotches are orange and the background color is light tan. The dorsal scales are peppered with black specks. Photo by Carrie Seltzer.

within the normal range known for this area (Mitchell, 1994). Despite the unusual orange coloration, this individual would readily key out using pattern and scale characters as *Lampropeltis t. triangulum*.

Other milksnakes from this region exhibit phenotypes that differ from the normal Eastern Milksnake form. Baird & Girard (1853) described a milksnake from Clarke County, Virginia, as *Ophibolus clericus* (USNM 2380) because the dorsal pattern appears as a series of black rings alternating with "ash-colored" rings. Body blotch count was 29, the blotches extended to near the venter, and the venter was "yellowish white with distinct black quadrate black blotches." This taxon was later synonomized by Stejneger & Barbour (1917) in recognition that *O. clericus* was only an unusual Eastern Milksnake. Another milksnake collected in Shenandoah National

Park (SNP) in 1962 (USNM 148479) has 26 dorsal blotches that extend to scale row 1 and the neck blotch is not connected to the one on the head. A milksnake found DOR on Skyline Drive in SNP in the 1980s, Rockingham County, had 29 orange blotches that nearly overlapped the entire body and a neck blotch that did not connect to the head blotch (JCM, pers. obs.). Williams (1988) considered the original USNM specimen from Clarke County an intergrade between *L. triangulum triangulum* and *L. triangulum elapsoides*. Presumably, the two noted from SNP would also fit into this category.

Lampropeltis triangulum populations in the upper Shenandoah Valley and northern Blue Ridge Mountains in Virginia may possess complex genotypes that underlie the range of phenotypes noted from Clarke County and SNP. This may not be the case in more southern parts of the Blue Ridge and in the Ridge and Valley physiographic provinces (Mitchell, 1994). Clearly, the pattern and color complexity of milksnakes in the northern Blue Ridge Mountains, as well as the natural history and ecology of these populations, warrants further study. Careful notes on all aspects of phenotypic variation, microhabitat, weather, and behavior should be accumulated on all milksnakes in the Virginia Blue Ridge and Shenandoah Valley so that the causes and ramifications of the extensive range of variation in this species can be better understood.

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OPPORTUNISTIC SCAVENGING BY EASTERN AMERICAN TOAD (*BUFO AMERICANUS AMERICANUS*) TADPOLES ON A DEAD RED-SPOTTED NEWT (*NOTOPHTHALMUS VIRIDESCENS VIRIDESCENS*) – The diet of most tadpoles is assumed by many to consist of algae, detritus, and protozoa, but many tadpole species supplement this herbaceous diet with animal protein (Alford, 1999). On 14 April 2005 at 1800 h EDT, one of us (JDG) observed a feeding aggregation of Eastern American Toad (*Bufo americanus americanus*) tadpoles consuming a dead Red-spotted Newt (*Notophthalmus viridescens viridescens*). The shallow pond, located in White Oak Mountain Wildlife Management Area, Pittsylvania County, Virginia (36° 46' 43.1" N, 79° 19' 56.4" W, NAD 83), measured 17 m by 61 m. Water temperature was 25° C. The tadpoles appeared to be concentrated around two openings in the body wall of the newt. The two openings were located inferior to each forelimb. Abdominal organs were protruding out of one opening. Total length of this male newt was 84 mm. The death of the newt was likely the result of an aborted predation event. When examined, the newt showed no signs of ill health except for the two holes in its body. The newt was checked again four days later. All of its skin was completely stripped to the muscle. No tadpoles were observed feeding on the carcass at this time, although thousands of tadpoles were present in the pond. We could not find the newt the next day when the pond was last checked.

Fig. 1. American Toad tadpoles scavenging an adult male Red-spotted Newt in Pittsylvania County, Virginia.